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SCHMIDT'S GUIDE TO DRAWING.

TO THE EDITOR OF THE COMMON SCHOOL JOURNAL :

The chief objections to the introduction of Drawing into the Common Schools, are the want of instructors and want of patterns; but both these objections would be done away, could Peter Schmidt's "Guide to Drawing" be widely diffused in this Commonwealth. It is a series of twenty-four lessons, upon nineteen rectilinear blocks; together with directions for drawing a niche, a cylinder, and a ball, in every possible perspective view. The book tells the scholar exactly how to proceed, in finding the perspective points and uniting them by lines. The original plan is, that every scholar should have a book; but it has been taught in this country in one instance, by a teacher having the book, and translating from it, sentence by sentence, to the pupils, who have each their pile of blocks before them. This experiment has succeeded to such a degree, as to make intelligible the encomiums passed upon the system by European writers. Diesterweg, the distinguished German writer on Education, from whose writings you have given us translations in your Journal, says, "Peter Schmidt's method has produced a new era in the art of drawing. He begins where others end, with the direct imitation of nature. The results of this method have been so remarkable, that he has drawn upon himself the attention of the whole world of teachers, and drawing-masters have flocked to him from all regions, to learn of him *the art of Teaching*."

An anonymous writer of Berlin says that the author of the Guide to Drawing "has not only discovered a good method, but has tested it by successful experiments. For so gladly was it received by the public of Berlin, by connoisseurs and dilettanti, as well as teachers, that Herr Schmidt has removed with his family to Berlin, and established himself here, not only to carry on his own art of portrait painting, but to impart instruction in the elements of practical perspective. The first artists, the most learned teachers, men most distinguished in rank and birth, (I need mention only his Royal Highness, Prince Augustus Ferdinand,) have made his personal acquaintance, to enjoy his instructions, and to testify their sense of the advantages his method offers to the public. Immediately on his arrival, more than six hundred pupils, for the most part grown persons, male and female, assembled at his Institute, and gave themselves up wholly to his instruction and guidance. Even artists by profession were seen there, with their drawing boards, to learn the secret, which, however, he made no secret; for he has always

taken the greatest pleasure in making other teachers acquainted with his methods.

It is well known in Berlin, that, by the diffusion of Schmidt's principles, the art of drawing here, and in other places, has undergone a wonderful and universally beneficial revolution.

Not only here, but in Stettin, Hamburg, and other places, his method is followed by public and private teachers, and at many domestic firesides. Prof. Hensius of Berlin,—considered by all who know him as a competent judge in all matters of instruction as well as education,—has fully testified his approbation of this method in the Berlin Gazette, in an article from which is made the following extract:—

"The ground principle of Schmidt's method, is to induce the pupil to do what he does, with perfect confidence in himself, and, to effect this, he gives him only so much to accomplish, at any one time, as will bring him the feeling of perfect success, keep alive his attention by not demanding its continuance too long at once, and sustain the charm by requiring him to do the whole himself, instead of depending upon the aid of others to perfect a work he has carelessly begun. He never gives the same lesson twice, but varies the form of it continually, in order not to weary and discourage. It is his opinion, and every one who has experience upon the subject will agree with him, that an infinity of time and trouble is lost by the usual superficial modes of teaching drawing.

"For eighteen years Schmidt went on simplifying his plans more and more. At first, with much expense, he procured models of houses, towers, water and wind-mills, and temples; but at last he concluded that all the principles of drawing and shading could be learned from a few rectilinear blocks, a niche, a mill-stone and a ball. In his own Institute these are followed by sketchings from plaster heads and other forms, and also from living models.

"What wonderful effects have appeared, as the results of his method, are too well known to need comment here. At the last exhibition of art in Berlin, the scholars of Herr Schmidt excited the astonishment of connoisseurs, by the drawings they produced after a very short term of instruction. Extreme delicacy of touch, united with manly strength, perfect justness of contour and perspective, the finest keeping of light and shade,—in short, all the demands of good drawing, were answered, in the highest manner, in every one of the specimens. Indeed, the results of former methods, when compared with these, faded absolutely into nothing.

"One striking result of this method is, that beginners succeed equally well with the most practised teachers. 'Raphaels and Titians,' (as Schmidt himself says,) 'he cannot form;' nature forms such artists. But by just and well considered methods, he believes it possible to draw forth from every man, an indwelling power of drawing from nature; and through readiness of hand, sharpening of attention, and of sight, and cultivation of the thinking as well as seeing powers, to awaken his taste for the beautiful in nature and art, and his capacity for delineating it in both, at least, so far as to give pleasure to himself and others, to serve his purpose in all the arts of life, and to contribute essentially to the harmonious cultivation of his mind and character.

"If these results of Schmidt's good method seem impossible, we only refer to what has been already accomplished in the Institute in

Berlin, where drawings of animals, of landscapes, and even of human figures, are executed in the finest perspective, and with the most harmonious gradation of light and shade. Mathematical perspective and all mechanical means fail of producing these ends, because they do not cultivate the *mind*. The love of drawing, which Schmidt inspires even in his youngest scholars, is another proof of his success, well known to all those familiar with his Institute."

It would take a long time, probably, for the State, as a State, to make any adequate provision for that instruction in drawing which in Prussia is given to every child by an imperative law. But a few public-spirited individuals, by making a liberal subscription of a large number of copies for public distribution, so that every teacher in the State should have at least one copy, might bring about this most desirable result. The book, at any rate, will not be expensive; but, if liberally patronised in this way, might be brought out at much greater advantage, and at such a price, that the pupils would buy. In order to use the book, a teacher needs not himself to have any previous knowledge of drawing.

At our request, the author of the excellent "Primary School Reader," which we noticed in the 12th number of this Journal, has furnished the following valuable communication. Our only regret is that it is not longer. We shall hope for more from the same source.

(For the Common School Journal.)

THE ART OF READING.

It is gratifying to perceive an increasing interest in the study of reading in our common schools. This branch of instruction has, until recently, been regarded by many as a subject of secondary importance. Children have been suffered to read on from lesson to lesson, and from book to book, as a matter of course; as if there were no other objects to be attained than to read through a given number of pages in a definite time; and the consequence is, that there are but few good readers.

Reading is principally defective in these particulars—indistinct articulation, and the use of improper tones and inflections.

Can any improvement be made in the plan of teaching children to read, so that these defects may be remedied? Undoubtedly there may. A regular and proper system for teaching children to read is as necessary as it is for teaching any other art; and unless such system is pursued, we can hardly hope to succeed in our attempts to make all good readers.

A perfectly accurate and distinct articulation forms the basis of good reading. This should therefore claim our first attention. "In just articulation," says a modern writer, "the words are not to be hurried over, nor precipitated, syllable over syllable; nor, as it were, melted into a mass of confusion. They should neither be abridged, nor prolonged, nor swallowed, nor forced; they should not be trailed, nor drawled, nor let to slip out carelessly. They are to be delivered out from the lips as beautiful coins, newly issued from the mint; deeply and accurately impressed, perfectly finished, neatly struck by the proper organs, distinct, in due succession, and of due weight."

But how is this just articulation to be attained? Books have been written upon the subject, lectures have been delivered, and various methods adopted; still the defects exist, and they will continue to exist until we strike at the root of the evil. It is in vain that we make books and adopt plans in teaching for the purpose of correcting bad habits. We must endeavor to form good ones in the very beginning of education. In this case prevention is easy and certain, and the cost of it comparatively trifling. But the remedy of the evil is very difficult, and rarely effectual. If, therefore, we would teach an accurate and distinct articulation, we must commence in the primary schools.

In teaching children the alphabet, the *powers* or *elementary sounds* of the letters should be taught in connection with their *names*. This will enable them not only to pronounce words more readily at sight, but to utter them with distinctness. By being taught the powers of the letters, they will be much more interested, and consequently will more readily acquire the names. It will be found a useful exercise for the teacher to name a letter, and require the child to utter its sound; then utter its sound, and require the child to give the name.

If teachers have not practised uttering the elementary sounds of the letters, the following directions for ascertaining them may be useful. Pronounce a word containing the letter in a slow, drawling manner; notice the sound of it, as it issues from the mouth, and then utter the element by itself.

Next comes the reading of words. It should be borne in mind, at this stage of instruction, that the principal object to be attained is, not to see how many words the child can be taught to recollect in a given period of time; but it is to see how accurately and distinctly the words can be pronounced. The process of teaching children to call words at sight, is not a difficult one,—it is merely a work of time, requiring only patience and perseverance on the part of the teacher,—but that of teaching them to utter words distinctly, requires not only time and labor, but also a regular system.

For this purpose, a selection of easy words should be made,—say ten or twelve,—containing one particular sound. The teacher should utter the elementary sound of the letter, and require the pupil to repeat it; then the teacher should pronounce a word, and require each pupil to repeat it; then the class should repeat it in concert. After this exercise, the children may be taught to spell the words, sometimes uttering the names of the letters, and sometimes the powers. To prevent this exercise from becoming tiresome, a few easy sentences should be read, such as they will be able to understand.

A similar lesson should be given upon each of the sounds in the language, and upon such of the consonant sounds in combination as can easily be uttered by young children. By pursuing this system, the voice will be exercised upon all the sounds, and the foundation for an accurate and distinct articulation will be firmly laid. We may then proceed to rear the superstructure.

W. D. S.

“A LEARNED doctor has given it as his opinion that tight lacing is a public benefit, as it kills off the foolish girls, and leaves the wise ones for women.”

WHAT SHALL BE MY SABBATH READING?

I HAVE determined that I will spend my Sabbath as a day of rest from the labors of the week, and I will devote it, so far as I can, to the improvement and elevation of my spiritual character. I will endeavor to exclude schemes of gain, which have occupied so many of my daily thoughts, as I find myself imperceptibly too much engrossed by them; and I tremble lest I become a slave of mammon. I desire no longer to indulge in dreams of pleasure, lest the silken net of sensuality be cast over me before I am aware. And plans of ambition;—they surely belong not to the peace and rest of this day. If then I free myself from the influence of these evil spirits which have hitherto made me almost a prisoner, and if I refuse to waste the precious hours in sloth, I shall have some portion of each Sabbath to spend in reading. What shall it be? What reading will be most favorable to the high, and pure, and holy thoughts which I desire to cherish? What would the Saviour, if I could ask him, approve? He has taught me that it is lawful to do good on the Sabbath day. What is good?

He has told me that unless I humble myself as a little child, I cannot enter the kingdom of heaven. Humility then is an essential doctrine of His gospel, and my reading must be favorable to humility. I must avoid what has a tendency to make me self-satisfied, or proud of my thoughts or opinions, or whatever belongs to myself. Pride, in every form, is the great enemy of the spiritual life. Is there not danger of my becoming proud even of my religious opinions, my religious character, my religious humility? I am often aware of a feeling of this kind; and if it be real, and the Saviour is not mistaken in the stress he lays upon humility, what is my religion good for? Can spiritual pride, or any pride, be consistent with the spirit of the lowly Jesus?

Another lesson which my Saviour teaches is charitableness. "Judge not," are his words; and one who was instructed of Him has told me what charitableness is;—that charity "thinketh no evil." I must, therefore, not read anything which diminishes my charity for my fellow-creatures,—for their character, their purposes or their opinions. Whatever is written in an uncharitable spirit, no matter what name it has, I will endeavor to avoid. Let me not be deceived by names. What tends to make me uncharitable, to think evil of others in comparison with myself, cannot be less harmful, coming under the cloak of a sermon or a religious tract, than if it came under the name of scoffing or unbelief. Probably it will be more so; for, in the latter case, I should be on my guard; in the former, I should not. Whatever renders me uncharitable must be wanting in that Christian spirit whose most marked characteristic is charity.

My Saviour teaches me that my first duty is to love my Father in Heaven. My heart tells me that the highest privilege is to draw nigh to Him and worship Him. Whatever book, therefore, tends to make me love Him, fills me with reverence for his character, makes me rejoice in His works, and leads me to exclaim with delight, "my Father made them all,"—must be useful reading. And whatever makes me doubt of His goodness, His justice or His mercy, must be injurious, and ought to be avoided.

The second commandment of the New Testament is like the first. "Thou shalt love thy neighbor as thyself." How divine

are both these commandments! Those books must be useful which quicken my love of my neighbor, and show me how I may benefit him; which increase my sympathy for him, and interest me in what tends to advance and improve society. Those books must be bad or doubtful which make me selfish, or distrustful of my fellow-man, or despairing of his advancement.

The most comprehensive charge of the Saviour is, "Be ye therefore perfect, as your Father in heaven is perfect." To keep this charge I must aim at perfecting every part of the nature which God has given me;—my body, that it may enjoy the good He offers me, and be a fit residence for the indwelling soul; my powers of mind, that I may perceive and comprehend the wisdom which surrounds me in the creation, and understand His laws; my soul, that I may do justly, and love mercy, and walk humbly with my God. In aiming at this perfection, those books will aid me which teach me how fearfully and wonderfully I am made, or which enlarge my knowledge of the laws of God's providence in the structure of the body, the mind, or the spiritual being; which innocently improve my faculties, which help me better to serve my fellow-men, or which give me more exalted ideas of the vastness and beauty of the creation, or of the wisdom of its Author.

I need not ask by what name a book is called. It will be safe and useful for me if it helps me to keep these commands of the Saviour; it will be pernicious, if it tends to make me proud or self-satisfied, uncharitable or suspicious, sensual or selfish, malicious or irreverent.

THE TWO ROSES.—Being with my friend in a garden, we gathered each of us a rose. He handled his tenderly, smelt of it but seldom and sparingly. I always kept mine to my nose, or squeezed it in my hand, whereby in a short time it lost its color and sweetness, but his still remained as sweet and as fragrant as if it had been growing on its own root.

The roses, said I, are the true emblems of the best and sweetest enjoyments in the world, which, being moderately and cautiously used and enjoyed, may for a long time yield sweetness to the possessor of them; but if once the affections seize too greedily upon them and squeeze too hard, they quickly wither in our hands, and we lose the comfort of them.

It is a point of excellent wisdom to keep the golden bridle of moderation upon the affections.—*Flavel*.

THE ordination of Providence is, that home should form our character. The first object of parents should be to make home interesting. It is a bad sign, whenever children have to wander from the parental roof for amusement. Provide pleasures for them, around their own fireside and among themselves. The excellent Legh Richmond pursued this plan—had a museum in the house, and exerted every nerve to interest his little flock. A love of home is one of the greatest safeguards in the world to a man. Do you ever see men, who delight in their own firesides, lolling about taverns and oyster-cellars? Implant this sentiment early in a child; it is a mighty preservative against vice.—*The Christian World*.

SIXTH ANNUAL REPORT OF THE SECRETARY OF THE BOARD OF EDUCATION.

[Continued from page 236.]

How little is the diet, especially of young children, regulated in accordance with the principles of Physiology. Nutrition and growth depend not less on the times at which food is given, than on the quality of the food itself. Yet, with most mothers, feeding is the standing remedy for every manifestation of disquiet.*

After a child has passed the period of infancy, and begins to show that he has impetuous and unborrowed impulses within, he is then hired to do one thing, or to abstain from another, by the promise of some dainty; and thus he is defrauded, at the very outset of life, of that inward, spontaneous emotion of pleasure, which nature has made inseparable from every right action performed from a right motive; and instead of the feeling of joy, which would be a sufficient reward for an angel, there is substituted a sensual pleasure, which can only satisfy a brute. Even in educated circles, it is still a common thing for acquaintances and visitors to send or carry to children some pernicious present of confectionary or sweetmeats, as a testimonial of, or perhaps more frequently, as a lure to affection. Thus, not only selfishness, but physical disturbances are caused, and morbid appetites generated, which, before the close of life, grow into tyrannical desires, involving character and happiness, or subject the sufferer to agonizing struggles and mortifications, before they can be subdued. Such an act ought to be regarded as an injury at least, if not an insult;—oftentimes it is both. And even amongst adults who are accounted rational men and women, and who are not obnoxious, in any one thing, to the charge of sensual indulgences, how little is the grand axiom practised upon, that *the temperate man is the greatest epicure*;—that is, that in the long-run of life, those persons will derive the greatest amount of pleasure from their natural appetites who never indulge them to excess.

While such practices in the treatment of childhood and youth, even in the single article of diet, continue to prevail, it will be necessary that more than three hundred and sixty-five miracles should be wrought in their favor, every year of their lives, before they can ever become a vigorous race of men and women. But, until the subject of Physical Education is better understood, any general reformation is hopeless.

In regard to exercise, many people who acknowledge it to be indispensable, and a necessary of life, still conceive of it as some given amount of bodily motion or of muscular activity, which may

* "It is a great mistake," says Dr. A. Combe, "to treat crying as an infallible sign of an empty stomach. New as the infant is to the surrounding world, it shrinks instinctively from every strong sensation, whether of heat or of cold, of pressure or of hardness, of hunger or of repletion. Its only way of expressing all disagreeable feelings is by crying. If it is hungry, it cries; if it is over-fed, it cries; if it suffers from the prick of a pin, it cries; if it lies too long in the same position, so as to cause undue pressure on any one part, it cries; if it is exposed to cold, or any part of its dress is too tight, or it is held in an awkward position, or is exposed to too bright a light, or too loud a sound, it can indicate its discomfort only by its cries; and yet, the one remedy used against so many different evils, is, not to find out and remove the true cause of offence, but to give it the breast."—*Combe on Infancy*, p. 152.

be taken, once for all, at the end of a week or a month;—or that, by securing an annual vacation, they can condense into one toilsome excursion what should be distributed over the year. They do not regard it, like food, as a daily necessity. They do not know that its utility depends wholly upon certain states, either of the system in general, or of the digestive organs in particular. Hence inconvenience and expense are often incurred in order to promote health by means of exercise, which, from its untimeliness or severity, is sure to inflict greater evils than it was intended to avert.

Nothing is more commonly overlooked, than that the great sustainers of a vigorous life,—air, exercise, diet,—depend upon proportion, adaptation, adjustment; that what is salutary at one time may prove fatal at another; and therefore that there should be a presiding intelligence in every individual, by which his conduct may be so modified as to correspond with ever-varying circumstances. It is injurious to health to be deprived of a sufficiency of food, but if one is deprived of exercise, it is better that he should be deprived of a corresponding portion of food also. In the long-run, it is fatal to be deprived of fresh air; but without an adequate quantity of food, even fresh air will consume the vitals of the system. Thus, the hibernating animals live without either food or air, for months, when, if they exercised and respired freely, and at the same time were deprived of food, they would perish in a week.

An accurate knowledge of a few great physiological principles, together with a sound judgment or discretion in applying them, will suffice to ward off an inconceivable amount of human suffering, and to confer an ability to make great additions to the public welfare, instead of subtracting from it. The Creator assures us that “He doth not afflict willingly nor grieve the children of men;” and if, in all things, the race should obey the physical laws of God, they would no more suffer physical pain, than they would suffer remorse, or moral pain, if in all things they would obey the moral laws of God.

This subject has merits which should command the attention of the statesman and political economist. All investments to preserve or increase the public health, would be reimbursed many fold, in an increased capacity for production. One of the most important items in a nation’s wealth, consists in the healthfulness and vigor enjoyed by its people. All agriculturists and manufacturers must feel the force of this remark in regard to their own workmen; and they would feel it still more if they were obliged at their own expense to support those workmen, during all periods of sickness or incapacity to labor;—and this is the relation in which the State stands to its citizens. It has been said by some writers on political economy, that from one seventh to one eighth of all the wealth of a country originates in the *labor of each year*. Hence, if any nation or community should cease from production for seven or eight years, the whole of its wealth,—houses, lands, goods, money,—would be consumed. What a forcible idea of the value of labor is presented by this fact! Yet, what a sick workman or operative would be to a capitalist who was obliged to maintain him, a sick citizen is to the republic. Every sick man, every man rendered unserviceable by general debility or specific ailment, must be subtracted from a nation’s available resources. He not only adds

nothing to the common stock, but he draws his subsistence in some form,—and often, too, a very expensive subsistence,—from the storehouse which the industry of others has filled. Omitting all considerations of personal and domestic suffering, of the extinction of intellectual power, and of those moral aberrations which originate in physical derangement and disease,—and considering the race under the mere aspect of a money-making power,—in this respect it is clear, that the health and strength of one community, if set in opposition to the debility or infirmity of another, would be sufficient not only to determine the balance of trade, but to settle all other points of relative superiority. Let such information be diffused through the public, as all the children in our schools might easily acquire, and a single generation would not pass away, without the transfer of immense sums to the other side of the profit and loss account in the national ledger. Of course I do not mean that all diseases could be abolished at once, even by the universal diffusion of a knowledge of their causes; or that the era foretold by the prophet would be ushered in, when “the child shall die a hundred years old,” and when there shall be no “old man that hath not filled his days.” The violation of those beautiful and benign laws which the Creator has inwrought into our system, has been too heinous, and too long persevered in by the race, to be expiated or atoned for in a single age. Disease and debility, transmitted through a long line of ancestors, have acquired a momentum by the length of the descent, which cannot at once be overcome. But I do mean, if this subject were generally understood, that such a change would be wrought in a single generation, that a broad and deep current of wealth would be made to change its direction; and, instead of millions annually flowing outward from the common treasury to defray the various expenditures of sickness, that treasury would be replenished by an equal number of millions, coined in the mint, and from the ore, of labor-loving health. Yet, amid all our pecuniary speculations, this grand financial operation of substituting health and strength for sickness and debility,—that is, immense gains for immense expenditures,—has been unheard of.

In the army and navy, when the expediency of giving battle has been discussed in a council of war; or afterwards, when the causes of defeat have been explained by the vanquished, the state of the sick-list has been made the subject of inquiry. The historian, too, in his account of campaigns, recognises health and sickness as among the grand causes of success or disaster. But the manly health and vigor of a people engaged in the arts of peace,—as among the most essential items in a nation's valuation, as a capital ready for profitable investment in any industrial enterprise, and therefore, as a prolific source of public revenue, as well as of private wealth,—have been overlooked by statesmen and lawgivers in all their schemes for national aggrandizement.

The pecuniary merits of this subject may be presented under another aspect. Children, at different ages and under different circumstances, may be regarded as representing investments of different sums of money. These investments consist in the amount which has been expended for their nursing, rearing, clothes, board, education, and so forth, and in the value of the time of others which has been appropriated to them. Though differing exceedingly in regard to different persons, yet, in this country, the aggregate

expense, with its accruing interest, of the great majority, at the age of twenty or twenty-one years, can hardly be estimated at less than from five hundred to a thousand dollars, after deducting the value of all services performed. Now, if half mankind die by the time they arrive at this age, or before it,—and half of these come to their untimely end through the ignorance of their parents or themselves,—what an amazing price does our ignorance cost us! With what reckless prodigality do we continue to cherish it! What spend-thrifts we are of wealth, as well as of the purest sources of affection and domestic happiness!

Compared with the economical value of physiological knowledge to a nation, what is the utility of discovering a northwest passage, or of exploring the sources of the Niger, or circumnavigating a continent of ice around the south pole? Yet no systematic measures have ever been taken by any government for its universal diffusion amongst the people, although it is certain that such knowledge is a condition precedent, without which a high point of health for the whole community can never be reached. Our Common Schools are a channel through which this knowledge,—as delightful in the acquisition as it is useful in possession,—may be universally diffused; and, in the long-run, its legitimate products will be found to transcend in value the gains of the most adventurous commerce, or the spoils of the most successful war.

Perhaps some may deem it a visionary notion, that any considerable amelioration of the public health can be effected by a more extended acquaintance with the physical laws. Many persons attribute disease to accident or chance, or to some occult or remote cause, lying beyond human ken, and therefore beyond human control. Some believe diseases to be judgments directly inflicted by Heaven upon the body, for offences committed against the moral law. Others, again, suppose pain and untimely bereavement to be a part of the inevitable lot of humanity, designed to test the strength of our confidence in the goodness of the Creator; and they, therefore, deem it a duty to practise resignation to what they suppose to be the divine will, rather than to inquire whether there may not be a duty of prevention as well as of acquiescence. This last view often degenerates into a sort of fatalism,—a belief that what is to be will be, and that our destiny is fixed irrespective of our conduct.

Amid this vagueness and confusion of thought,—often aggravated by superstitious views of the divine government,—the frightful extent of maladies which we bring upon ourselves, as the direct consequences of our own misconduct, ceases to be a subject of wonder. We attribute to Divine Providence what belongs to our own improvidence. We refer to chance what flows from the violation of unchangeable laws. Oftentimes we submit passively to pain, without seeking to find antidote or remedy, when the very object of the pain is to admonish us that we have offended, and to quicken our intellect to discover in what the offence has consisted, or to apprise our moral nature of the consequences of a known disobedience. In most cases, however, the ignorant appeal to empiricism to relieve them from the consequences of their ignorance, and thus they aggravate the evils they would remedy. An immense extent of suffering, of abridgment of human life, is regularly bought and paid for among us. A market of imposition is opened to supply the demands of

ignorance; and this must continue to be so until the people are more enlightened. Did the pretenders to medical science, who infest the country in such formidable numbers, confine themselves to the barbarian's practice of charms and incantations, the mischief wrought by their arts would be far less deplorable; but, accustomed as they are to more potent prescriptions, they commit wider havoc of human health and life, than the medicine-men of the savages themselves.

In regard to this great subject, the first rule in point of authority as well as of reasonableness, is, that "sin is a transgression of the law." And the consequences of a transgression of the physical laws, are equally visited upon the *body* of the offender, whether he were acquainted with the laws or not. An infant, though helpless and ignorant of the quality of fire, into which it accidentally falls, will be consumed by it, as certainly as a Hindoo devotee who leaps into it for self-destruction. In the foundering of a slave-ship at sea, the stolen victim will be drowned as soon as the ruthless kidnapper. When carbonic acid gas enters the lungs, it extinguishes life with equal certainty and rapidity, whether the heart of the sufferer be good or evil. On this subject, therefore, the first rule, that "sin is a transgression of the law," is universal;—and equally universal is the last, that "the way of transgressors is hard."

The hastiest glance at the condition in which we are placed in this life, will demonstrate, not merely the utility but the necessity of Physical Education, as a department of knowledge to be universally cultivated. We are introduced, at birth, into the midst of the great agencies of nature. Each one of these agencies is sufficiently powerful to obliterate our senses, to maim our persons, or to extinguish our lives; and yet we are profoundly ignorant of their properties, and of their modes of attack. We bring into life, it is true, a certain amount of vital force, which is antagonistic to the forces of nature; but this vital force at first is so feeble, that, if not protected against its assailants, it is subdued at once, and life is annihilated.

The chemical affinities or forces, for instance, hold perpetual combat with the vital force. Our bodies are the battle-ground where these hostilities are carried on. If the vital force be driven, for a single minute, from any part of our bodies or organs, forthwith, in obedience to the chemical law, decomposition or mortification commences; and if the chemical force be not overborne and beat back by the vital force, the mortification extends, and death ensues.

And what is more, the vital force with which we are endowed cannot be sustained for an hour, without drawing for support upon the hostile elements by which we are encompassed;—that is, a certain portion of these elements is essential to our existence, while an excess of them is fatal to it; and further, the result is equally fatal, whether we take too much or too little. Air is a necessary of life, from the first moment of our introduction into it; and yet the extinction of life will ensue as certainly from exposing the whole body to the action of the changes and currents of air, as from an entire deprivation of it. Necessary as is the air, yet if its temperature varies very much from that of the blood, either on the side of coldness or of warmth, each extreme is equally fatal. And again, if the air is too moist or too dry, the vital organs are clogged by its

humidity, or inflamed by its aridness. Drink is necessary, but at first the urn of life is so shallow, that a few drops in excess will sink it forever. Food is necessary,—if withheld, death follows by privation; if administered too freely, death equally follows by repletion; and if of an unwholesome quality, then it becomes a poison. Light is necessary to awaken the visual sensibility of the eyes, yet too strong a beam will extinguish them forever. Sound is necessary to break the silence of the ear, yet if too violent and shrill, it will rend the delicate organ it should only have vibrated.

Now nature parcels out to us no fixed, definite quantities or qualities of these elements, which are essential in degree; in excess, fatal. In the course of a year, from the melting heats of summer to winter's congelations, we are carried through variations in atmospheric temperature, amounting to more than a hundred degrees. Even in a single day or hour, this temperature varies to an extent utterly destructive of health and life itself, if our prudence does not mitigate its changes. It varies, too, from the extreme dryness of the northwest wind, which will extract moisture from kiln-dried wood, to the humidity of a southerly, or southeasterly wind, in which a fish would hardly perceive that it was out of its own element. We are also placed in the midst of a boundless profusion and variety of materials for food, both of the animal and vegetable kinds, and these kinds are intermixed with attractive though poisonous substances; and yet nature utters no warning voice when we are about to pluck and eat unwholesome fruits, nor does she stretch forth a hand to arrest our hands when we are indulging to a surfeit. Although, therefore, the vital force which we bring into life, if duly nurtured and protected, will speedily obtain immense accessions of strength, and power of endurance, yet it is always surrounded, pressed upon, besieged, by the mightier forces of nature; and hence, not only our health and strength, but our very existence depends upon a knowledge how to adapt ourselves to these external agencies. Neither heat nor cold, nor moisture, nor dryness, nor food nor raiment, is meted out and apportioned to us, as needed for our daily use and for the prolongation of life. We are left without any revelation, to find by our own study, what kinds, in what quantities, under what circumstances, they must be used to yield us the longest life and the greatest power. As all the agencies and objects of nature which surround us and come in contact with us, are *unintelligent* in regard to our wants, if we also are *unintelligent* in regard to their properties, then we and they hold the same relation to each other as that of particles in a chaos.

In our early years, these adjustments, adaptations, protections, are left to parental knowledge and vigilance; afterwards the responsibility is transferred from parents to offspring. But parents are deplorably ignorant. Hence they allow unhealthful indulgences. They inculcate false principles. They establish bad habits. As an inevitable consequence, sickness and suffering abound. Disease or debility of some vital organ is the common lot, rather than the occasional fact. Untimely death is so frequent as no longer to excite surprise. And maladies, whose pains are severer than those of death, are bequeathed from parents to children as a disastrous and perpetual heritage.

Suppose any portion of our population to be as unlearned in the science of Physiology as a tribe of savages, and a hundred reasons

will be apparent why such portion would suffer more of disease and physical degeneracy than savages themselves. In civilized communities there are many causes creative of disease which have no existence in a savage state. In the former the population is always more dense than in the latter. Hence people are crowded together in masses, and this mode of living, where ignorance prevails, is invariably accompanied with a dearth of pure air; and thus, at once, an indispensable constituent of health is taken away, and a prolific source of disease substituted for it. In the various processes of the arts cultivated by a civilized people, unhealthful occupations are pursued. All in-door and sedentary employments come within this description. In many branches of manufacture, noxious products or gases are evolved, which the operator inhales to the detriment of health, and often to the direct and obvious abridgment of life. Among savages, there is no painter's colic. No polisher of steel breathes steel dust to inflame and corrode his lungs. No smelter lives in an atmosphere of corrosive gases. No preparer of beverages inhales the carbonic acid which is evolved in the process of fermentation. No savage tribe has ever reached such a depth of degradation as to render the enactment of penal laws necessary to rescue innocent and helpless children from excessive labor in factories and coal mines. Amid the luxuries of a civilized community, the more degraded classes are surrounded,—by temptations always, and by opportunities occasionally,—for indulging their appetites in forms of excess from which barbarians are happily exempted. All these are powerful agents for breaking down the health and constitution of those who occupy one extreme of the social scale. The other extreme is also assailed by causes hardly less potent for evil. What are seductively, but falsely, called the refinements of life;—an ability to indulge in luxuries and epicurean diet, without any necessity for a corresponding degree of active exercise; fashions of dress in impotent defiance of climate; the conversion of night into day; systematic bodily indolence lowering the tone of the system, and thus rendering necessary all the guards which human art can devise, against those inclemencies of the seasons which ought to be braved instead of being shrunk from,—all these are mighty causes of physical deterioration, from which the savage, whom we pity, is free. These are evils which, to a lamentable extent, characterize the civilization of the present age. Comfort has been sought so blindly as to bring a thousand discomforts in its stead. Means used to prolong life, have shortened it, because adopted in ignorance of its conditions. Yet, much as these errors destroy the vigor, abridge the years, and impair the happiness of the parents, their consequences are visited with terrible aggravation upon children.

And this is true of both the classes above referred to. Were the genealogy of families to be traced, it would be commonly found that those who occupy what are usually called, by way of distinction, the highest and the lowest grades in society, run out after two or three generations. Among the very poor, mortality is greatest below the age of five years. Among the wealthy, skill and appliances preserve their offspring through the years of childhood, to perish between the ages of fifteen and twenty-five, just as the hopes and prospects of life are dawning upon them. The lineage of the poorest comes to a termination by poverty and wretchedness; that of the richest goes off in chronic and hereditary distempers, gout,

apoplexy, and especially, among females, by consumption. Both are replenished from the middling classes of society, who owe their vigor and the perpetuation of their families, rather to the happy fortune of being compelled to labor, to be out much in the open air, and to incur what they call exposures and hardships, than to any knowledge of those laws which they ignorantly observe, but whose observance, though ignorant, is thus generously rewarded.

If opportunities for ease, and an eager competition for enervating luxuries and refinements, take possession of society, without any corresponding knowledge of the laws of health, the race itself must rapidly deteriorate. Such a degeneracy must not only be considered as one of the greatest calamities that can befall a people, but it must be entered on the catalogue of its greatest sins. We look with abhorrence upon those barbarous tribes who practise infanticide; but they are as little conscious of the wrong of depriving their offspring of mere animal life, as we are of the wrong of depriving ours of health,—that is, of all the physical blessings which life affords;—and an enlightened posterity may not be without difficulty in determining which is the greater offence against nature, to relieve the impotent, the diseased, the deformed child at once, of all mortal suffering, or to rear a race of puny, dwarfish, imbecile children,—the inheritors of parental maladies, doomed to suffer through all the years of their existence, for offences which they did not commit, and to leave to their own offspring a patrimony of aggravated and redoubled miseries.

About seven millions, or one half of the free white population of the United States, are under eighteen years of age. Could we allow to these only an average period of twenty-four or five years, after having reached majority, how important to the country would be their condition as to health and strength! How much more important, yet how much less regarded, than if they were an army of seven millions of men! And what significance and impressiveness does it give to the fact, that half of mankind die before reaching the age of twenty years. The amount of individual, domestic, social and public interests, dependent upon the physical well-being of this multitude, cannot be appreciated by any finite mind. It is too vast for our comprehension. We can hardly conceive of the latent power which exists even in a single healthy, well-formed infant. What a magazine of forces lies pent up within the narrow limits of its frame! What endurance, celerity, energy, achievement! As a mere material agent, a physical machine, there is something almost sublime in the idea of its hidden capacities and might. Who, without the evidence of observation and history, would be so credulous as to believe, that, in the tiny, flaccid arms of a group of infant children, there were concealed such energies as could turn a granite quarry into the dwellings and temples of a city, or convert a forest into ships, or a wilderness into a garden,—or almost turn the earth inside out to bring up its deep-deposited treasures for human comfort or embellishment? Yet we know that these helpless beings are endowed with innate forces which render such achievements possible and practicable,—that they can not only satisfy the wants of the body, but provide in abundance for the higher wants of the soul; and during the period of a short life, can prepare bounties and blessedness for continents and centuries.

But, on the other hand, the "glassy essence" of the child's life

may be so treated that he will become more and more fragile, that he will be tormented with the pains and infirmities of disease, instead of exulting in the vigor and buoyancy of health;—not able to impart aid to others, but constantly extorting assistance from them; adding nothing to the common stock, but drawing his own subsistence from it; and, instead of leaving the world indebted to him for the services he has rendered it, departing from it like an absconding debtor from among abused creditors. And if this is so important in regard to a single individual, how vastly is this importance increased, when multiplied by the number of all!

The idea is sometimes entertained, even by men otherwise intelligent, that nature imparts to each individual a certain specific or fixed quantity of physical force,—that this bestowment marks the extent or limit of ability, and therefore, when we have expended this quantity, whether more or less rapidly, we come to a point of exhaustion, which is not only natural but necessary. In other words, the assumption is, that each individual has a certain capacity, that this capacity is once filled, and when it is exhausted we might as well attempt to pour more than its own contents from a vessel of water, as to obtain more from the bodily system than the cubic measurement at which it was originally gauged. The same idea is sometimes more learnedly, though with equal error, expressed under another similitude. Different individuals are said to be like so many galvanic batteries, capable respectively of generating a certain amount of force, according to the magnitude of the machine, and the perfectness of its construction. This force, it is asserted, may be economized or squandered, but with every expenditure of power, a certain portion of the machine is decomposed; and when, either by the frequency or the intensity of the shocks, the whole chemical energies of the apparatus are destroyed, we have nothing left but worthless oxides of copper and zinc.

Nothing can be more false, or more disparaging to the benevolence and skill of the Creator, than this view of our corporeal mechanism. The bodily machine has the faculty, after having given off its strength, of recovering it anew. This process it can repeat thousands and thousands of times. It is recuperative, self-replenishing, self-repairing. Each muscular effort may, indeed, be attended by a waste or loss of a part of the muscle or organ that is used; but if the effort put forth is not excessive, that very waste is supplied by the deposit of new material which is capable of making a more vigorous effort than the part whose place it has taken. Thus we receive more than we give. The expenditure is followed, not by loss, but by accumulation; and this increase or reduplication may go on for fifty years without abatement.

But these wonderful resources of the body can be developed only by conforming to the laws of its organization. These laws are not an isolated system, independent of, and unconnected with everything else. They have the most intimate relation to the properties and laws of the external world. Diet, air, exercise, clothing, the changes of temperature and the vicissitudes of the seasons, light, moisture, the elevation or depression of different localities, come within their purview. With every new combination of circumstances, the law is modified; or rather, a new law applies to the case. The practical application of the law, therefore, is a matter of adjustment, proportion, fitness, relevancy,—that is, of KNOWLEDGE.

Can reasons so cogent and demonstrative as these, be offered in favor of the adoption in our schools of any of the other higher branches of knowledge? Here is a study upon whose cultivation the power to pursue all others with vigor and alacrity depends. Algebra and other branches of mathematics may discipline the intellect, and enable it to concentrate all its divergent forces into a focus of light, to be thrown on any particular point. Rhetoric and logic may make us acquainted with rules whereby to judge of the taste or reasonings of others, or to fashion our own. An acquaintance with the learned languages may enable us to read a few books, written in the infancy of society, before philosophy had acquired its present depth and expansion, and when scarcely anything was known of those great civilizers of mankind,—the useful arts. But an observance of the physical laws,—and knowledge must necessarily precede the observance,—would prepare us to enter upon any one, in the whole range of studies, or upon any of the active duties of life, with tenfold capacity and ardor. Soundness of health is preliminary to the highest success in any pursuit. In every industrial avocation it is an indispensable element; and the highest intellectual eminence can never be reached without it. It exerts a powerful influence over feelings, temper and disposition, and through these upon moral character. If, now and then, as a rare exception to the general course of events, an extraordinary individual appears, who, without the sustaining power of bodily vigor, enlightens the race by his solitary contemplations, yet it is believed that such prodigies have never transmitted their powers to their offspring, and that no instance has existed, where great executive efficiency has been united to intellectual or moral pre-eminence, in the absence of physical health.

So, too, in the common course of nature, it is as improbable that a mother who is physically diseased, will rear a healthy family of children, as it is that an immoral mother will train children to morality.

Yet, incredible as it may seem, the means of acquiring vigor, quickness, endurance, have been sought for, not by the clergyman, the lawyer, the artist, the cultivator of letters, the mother; but by the wrestler, the buffoon, the runner, the opera-dancer. There are ten professors of Pugilism in our community, to one of Physical Education in our seminaries of learning.

[To be continued.]

THE next term of the Normal School, at Lexington, will commence on Wednesday, the 13th of September, at 9, A. M.

All who purpose to enter school next term, are requested to present themselves on that day, for examination in Reading, Spelling, Grammar, Writing, Geography and Arithmetic. They are requested to bring a Bible, Worcester's Dictionary, Geography and Atlas, Colburn's First Lessons, and Sequel, Porter's Rhetorical Reader, and any treatise on Grammar which they may have heretofore used.

They must bring satisfactory certificates of character. None will be admitted who are less than 16 years of age, nor for a shorter term than one year.

SAMUEL J. MAY.

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